Docket No.: SH-0066PCTUS

AMENDMENTS TO THE CLAIMS

Please add claims 18-20 and amend claims 1-3, 6, and 7 as follows:

1. (Currently Amended) A manufacturing apparatus for a porous glass base material,

comprising:

a burner repeatedly reciprocating in a direction along a longitudinal direction of an axially

rotating base member glass rod, the burner ejecting and depositing glass particles onto the base

member glass rod; and

an exhaust hood positioned above a porous glass soot formed by the deposition of the

glass particles, the exhaust hood repeatedly reciprocating in the same direction as the burner and

in synchronization with the burner,

wherein the exhaust hood surrounding surrounds a portion of the porous glass soot

corresponding to such that an angle  $\theta$  of 100° or more with respect to of a cross section of the

porous glass soot perpendicular to a central axis of the porous glass soot is surrounded.

2. (Currently Amended) The manufacturing apparatus according to Claim 1, wherein the

angle  $\theta$  is 180° or more with respect to the central axis of the porous glass soot.

3. (Currently Amended) The manufacturing apparatus according to Claim 1, wherein the

exhaust hood is positioned so as to oppose the burner, and [[with]]

wherein the porous glass soot therebetween is provided between the exhaust hood and the

burner.

4. (Original) The manufacturing apparatus according to Claim 1, wherein a folding

mechanism is provided on an upper surface of the exhaust hood to adjust the angle  $\theta$ .

4

Docket No.: SH-0066PCTUS

5. (Previously Presented) The manufacturing apparatus according to claim 1, wherein

an edge surface of an opening of the exhaust hood is formed by a curved surface.

6. (Currently Amended) A manufacturing apparatus of a porous glass base material,

comprising:

a burner repeatedly reciprocating in a direction along a longitudinal direction of an axis-

rotating base member glass rod, the burner ejecting and depositing glass particles onto the base

member glass rod; and

an exhaust hood positioned above a porous glass soot formed by the deposition of the

glass particles, the exhaust hood repeatedly reciprocating in a the same direction as the burner

and in synchronization with the burner,

wherein [[0]]  $0.5 < r/R \le 1.5$ , when r denotes an offset between (i) an extended line of a

line connecting a central axis of the burner and a central axis of the porous glass soot and (ii) a

central axis line of an exhaust pipe of the exhaust hood which is parallel to the extended line, and

R denotes a radius of the exhaust pipe.

7. (Currently Amended) The manufacturing apparatus according to Claim 6, wherein the

exhaust pipe is positioned has a position that is higher in a vertical direction than a position of the

burner.

8. (Previously Presented) A glass base material for an optical fiber, manufactured in

such a manner that a porous glass base material is formed by using the manufacturing apparatus

according to claim 1, and heated at a high temperature to be sintered and vitrified into a

transparent glass.

5

Docket No.: SH-0066PCTUS

9. (Previously Presented) The manufacturing apparatus according to claim 2, wherein

an edge surface of an opening of the exhaust hood is formed by a curved surface.

10. (Previously Presented) The manufacturing apparatus according to claim 3, wherein

an edge surface of an opening of the exhaust hood is formed by a curved surface.

11. (Previously Presented) The manufacturing apparatus according to claim 4, wherein

an edge surface of an opening of the exhaust hood is formed by a curved surface.

12. (Previously Presented) A glass base material for an optical fiber, manufactured in

such a manner that a porous glass base material is formed by using the manufacturing apparatus

according to claim 2, and heated at a high temperature to be sintered and vitrified into a

transparent glass.

13. (Previously Presented) A glass base material for an optical fiber, manufactured in

such a manner that a porous glass base material is formed by using the manufacturing apparatus

according to claim 3, and heated at a high temperature to be sintered and vitrified into a

transparent glass.

14. (Previously Presented) A glass base material for an optical fiber, manufactured in

such a manner that a porous glass base material is formed by using the manufacturing apparatus

according to claim 4, and heated at a high temperature to be sintered and vitrified into a

transparent glass.

Docket No.: SH-0066PCTUS

15. (Previously Presented) A glass base material for an optical fiber, manufactured in

such a manner that a porous glass base material is formed by using the manufacturing apparatus

according to claim 5, and heated at a high temperature to be sintered and vitrified into a

transparent glass.

16. (Previously Presented) A glass base material for an optical fiber, manufactured in

such a manner that a porous glass base material is formed by using the manufacturing apparatus

according to claim 6, and heated at a high temperature to be sintered and vitrified into a

transparent glass.

17. (Previously Presented) A glass base material for an optical fiber, manufactured in

such a manner that a porous glass base material is formed by using the manufacturing apparatus

according to claim 7, and heated at a high temperature to be sintered and vitrified into a

transparent glass.

18. (New) A porous glass base material manufacturing apparatus, comprising:

an axially rotating base member glass rod;

a porous glass soot disposed on an outer circumference of said base member glass rod;

a burner repeatedly reciprocating in a direction along a longitudinal direction of said base

member glass rod; and

an exhaust hood disposed above said porous glass soot, said exhaust hood repeatedly

reciprocating in the same direction as said burner and synchronized with said burner,

wherein a cross section of said porous glass soot that is perpendicular to a central axis of

said porous glass soot is surrounded by said exhaust hood at an angle  $\theta$  of 100° or greater.

7

Docket No.: SH-0066PCTUS

19. (New) The manufacturing apparatus according to claim 18, further comprising:

an exhaust pipe attached to a portion of said exhaust hood facing away from said porous glass soot,

wherein  $0.5 < r/R \le 1.5$ , where r is an offset between (i) an extended line of a line connecting a central axis of said burner and said central axis of the porous glass soot and (ii) a central axis line of said exhaust pipe which is parallel to said extended line, and R is a radius of said exhaust pipe.

20. (New) The manufacturing apparatus according to claim 18, further comprising:

an exhaust pipe attached to a portion of said exhaust hood facing away from said porous glass soot,

wherein said exhaust hood comprises a folding mechanism provided on a surface of said exhaust hood, said folding mechanism being able to fold away from said porous glass soot toward said exhaust pipe.